**Design Criteria Worksheet: Egg Drop**

In this design challenge, students must apply their understanding of design and the technical skills required to use Autodesk® 123D Design® to design and model a container that will prevent a raw egg from breaking as it is dropped to the ground. Encourage students to supplement the resources provided in this project with other sources of knowledge that can include their texts, teachers, each other, and the wide array of online resources.

To develop innovative project solutions, it is critical to develop a clear understanding of all relevant design criteria. This worksheet is intended to help you identify important factors that shape this project by prompting a response to questions in four key categories: Who, Where, What, and Why.

**WHO**

* Who will use the egg drop container?
* Who will be responsible for different steps of the design process?
* Who would be a good resource for you as you consider the design elements of the egg drop container?

**WHERE**

* Where will the design features be located on the egg container?
* Where does the container touch the egg?
* Where will the components to craft the object come from?
* Where will the force of the fall be directed?
* Where does the force generated by the drop go?

**WHAT**

* What features of your egg protector will absorb shock or transfer it away from the egg?
* What forces will act upon the egg and your protector?
* What part of the container will produce the most air resistance in a fall?
* What material properties are most effective to protect an egg?
* What are some of the other real-world applications of shock-absorbing components?

**WHY**

* Why have you chosen your specific egg-drop-container design?
* Why are designs that minimize or redirect forces crucial to engineering problems in the real world world?
* Why can some materials absorb forces and shocks better than others?